instead of 1, of carbonate of magnesia, which was an important difference, and there was an entire absence of silica. Its disintegrability was, however, widely different—Portland stone, being exposed by Brard's process to an action supposed to be equivalent to two centuries of exposure to the weather, lost only 2·7 grains; while Bath stone, subjected to the same process, lost 10 grains.

The next stones of this class were those of Rutlandshire and Northamptonshire, of which most of the beautiful churches in the middle of England, remarkable for their good condition, were built. The best of these were the Ketton and Barnack stones. The Ketton was a pure oolite, having a rather coarser grain than the Portland, and not quite so good in appearance. It was, however, better than the Portland, inasmuch as it was worked much easier, and was, therefore, cheaper. It was also not so heavy, and yet quite heavy enough; its cohesive power was greater, and, though at first inferior in colour, it rather improved than otherwise by exposure. The church of St. Dunstan, in Fleet-street, was built of this stone, and, though not very old, had been erected long enough to shew the character of the stone. Its specific gravity was 2·045,—not materially varying from Portland stone, from which it differed in a very marked manner in its composition. It contained 92 per cent. of carbonate of lime, and 4 of carbonate of magnesia, with a little silica. It was much used in Cambridge in the construction of the colleges there, and looked remarkably well; and has been employed in the modern repairs of Ely and Peterborough cathedrals. Its loss by disintegration was 3·3 grains.

The next stone was the Barnack, which was more a shelly rag than a regular oolite: its colour was somewhat inferior, being a white mottled stone, and, therefore, not handsome. It consisted of 93 per cent. of carbonate of lime, and 3·8 of carbonate of magnesia; and its cohesive power was only two-thirds of that of Ketton stone. Its disintegration was very great by Brard's process, being 15 grains; but experience proved that it stood very well, and thus shewed that Brard's method could not always be depended upon.

Besides these, there were limestones which enjoyed a local reputation, such as that of Chilmark, in Wiltshire, which was remarkable for its cohesive power, and that of Ancaster, in Lincolnshire, and others.

The cretaceous beds did not afford building materials, the only chalk used for that purpose being those lower beds, locally called *clunch*, which was a very durable material for ornamental work in situations where it was not either exposed to the weather or to violence. For instance, the small chapels in Ely Cathedral, decorated with carvings of this material, had, after several centuries, preserved the freshness of even the most delicate portions.

The next group was that of the magnesian limestones, which were chiefly quarried in Derbyshire, Nottinghamshire, and Yorkshire. These were exceedingly valuable, as they not only stood exposure well, but were of a beautiful texture. The excellent qualities of the stone quarried at Bolsover were well tested in Southwell Church, Nottinghamshire, in which it had been exposed for many centuries, that edifice being now in better preservation than any other of the same period in England. This stone had become celebrated of late years in consequence of its being selected as the best material that could be obtained in England for the New Houses of Parliament. Though cheaper than Portland stone, it was greatly superior in every quality of importance. Its colour was good, its structure uniform, it could be obtained in blocks of any required magnitude, its specific gravity was greater than that of any other limestone, while its cohesive power was four times that of Portland stone. It was this high cohesive power which made it so decidedly the best stone for the New Houses of Parliament, where the enormous quantity of material to be supported, particularly in the Victoria Tower, rendered this important quality in an unusual degree so indispensable. Added to its other good qualities, on being subjected to Brard's process, any disintegration was scarcely perceptible. It appeared to be, in short, the best building stone produced in England.

Of the sandstones much need not be said. There were a great variety of them, but very few could be called good for building; and those which were good were so hard, that it was unlikely they would ever be used, except locally. They were chiefly the old red sandstone, the millstone grit and the coal grit; but, among these, there were some exceedingly bad, and others could only be used in a rough state, as they would not make ashler.*

CHURCH BUILDING.

The parish church of Sutton Waldron, near Shaftesbury, having been rebuilt, was consecrated on Tuesday, the 16th instant, by the Bishop of Salisbury. It has been erected at the sole expense of the rector, the Rev. A. Huxtable and his lady, at a cost of about 3,000*l.*, and accommodates from 200 to 250 persons. The style adopted is the decorated. It consists of nave and south aisle, with south porch and chancel, with vestry attached: western tower, with broach spire. The total length inside, 80 feet; width, 30 feet; height of tower and spire, 112 feet. The body of the church is paved with stone, the whole of the seating being uniform and moveable. The chancel floor is inlaid with encaustic tiles by Minton. The windows of the chancel are of painted glass by Hudson and Powell; the ceiling is powdered with gilt stars on an ultramarine ground. The beams of the chancel are illuminated, having scriptural texts, and other inscriptions will be added on the walls as soon as they are sufficiently dry. The communion-table is carved in oak; and a gilt eagle-desk stands at the steps to the chancel. A portion of the west end of the aisle is devoted to the baptistery, the floor and steps to the font being of encaustic tiles, and illuminated inscriptions being written on the walls. The font-cover is carved in oak. The principal windows of the body of the church are of stamped and painted glass, by Powell, and the remainder will be filled with painted glass hereafter. The exterior is faced with flints, and the dressings are of stone from Maperton.

In order to render the whole complete, the rector has furnished the church with new bells and silver communion-service, as well as carpets and velvet furniture to pulpit, desk, &c. The work has been very well executed by Mr. Green, of Pimperne, Dorsetshire, *without* a clerk of works, from the designs of Mr. Alexander.

In the week before last the Bishop of Ripon consecrated the new church at Wyke, near Halifax, built from the designs of Messrs. Mallinson and Healey, of that town. The church, which is called by the name of St. Mary, is in the early English style, and consists inside of a chancel, nave with clerestory, and north and south aisle. There is a sacristy on the north side of the chancel; a tower and spire at the west end of the south aisle; and a porch on the north side of the church. The roofs are open, the timbers being of deal, stained and varnished. The seats will accommodate upwards of 700 worshippers, and are all of deal, stained and varnished, without doors, and *all free*. There is a small gallery at the west end. The pillars and arches, as well as the window mouldings, are all of wrought ashlar; and there is a font opposite the north entrance, the bowl of which is sufficiently large for immersion. The pulpit, reading-desk, altar rails and table, are of oak. The dimensions of the church are as follow:—Chancel, 35¼ ft. by 17½ ft.; nave, 68 ft. by 20 ft.; aisles, 54 ft. by 11½ ft.; height from floor to ridge of chancel, 39 ft.; nave, 43 ft.; height of tower and spire, 110 ft. The first stone of the church was laid on Wednesday, February 11th, 1846.

The district church of St. Mark, Staplefield, Cuckfield, the foundation-stone of which was laid on the 19th Nov., 1846, was consecrated on the 18th inst. It is a sandstone building, in the early English style, with double and single lancet windows. The eastern window, of three lights, is to be filled in with painted glass at some future period. The church consists, of nave, 59 ft. by 25 ft.; chancel, 25 ft. by 20 ft.; porch, 11 ft. by 11 ft.; vestry, 10 ft. by 10 ft.; and a projecting bell-turret, with openings for three bells. The nave is the only part appropriated to the use of the congregation, and is fitted up with open benches, containing accommodation for 320 persons, nearly the whole of which are free. The chancel is entirely free of seats. The floor within the altar rails is paved with Minton's tiles. The altar rails are of iron, painted and gilded, and moveable. The porch on the south side, with a deep archway, supported by columns, forms the entrance. The roofs are of deal, stained dark oak, and varnished, and covered with Dampier's patent tiles. The architect was Mr. B. Ferrey, and the total cost about 2,000*l.*

* In the *Mining Journal* fuller reports of these lectures will be found.

PARKS FOR THE PEOPLE.

Sir,—In consequence of two letters in The Builder, relative to the once intended park at Copenhagen-fields, and the plots of buildings about to cover that interesting spot, I have visited it, and am sorry to find that all hope of saving it from the sulphureous vapours of the brickmaker and the fencing-in of the bricklayer must be given up, and in a short time the whole space between Holloway and Camden Town, to beyond the new road leading to Tottenham, will be covered with houses; several on each side of that road being already covered in, and forming landmarks for various determined lines of streets, &c. To one who, like myself, first courted the beauties of Nature in those very fields, when, in pursuit of a splendid butterfly, or gathering daisies, buttercups, or wild hyacinths, the view between the White Conduit and Highgate was uninterrupted by any building save the one isolated, countryfied Copenhagen House, beyond the little wood that bore the same name,—the change is conducive to serious reflections, like the fond illusive visions of early youth. To think that the expenditure of a few thousands might have saved those green fields and hedgerows from the encroachment, seems to throw some doubt on the consistency of those who talk much of Schools of Design and a Health of Towns' Bill, whilst they neglect obvious opportunities of securing healthy recreation and the sight of beautiful Nature to our working classes, who can ill afford the expense of railway excursions. I have also visited the Victoria-park, near Homerton, a space of, I believe, 157 acres of ground, purchased several years ago. If the management of that concern is a sample of what may be expected if government carried out the public park system, there is some consolation for their negligence in purchasing a belt of public ground round the metropolis, for nothing can be more unsatisfactory than the way that the ground has been smoothed, cleared of hedges and trees, planted in tasteless squares of small dimensions, &c. None of the advantages of the locality have been understood or turned to account. First, a field or two towards the Lea river ought to have been added, to prevent buildings from abutting in one of its finest prospects: the undulations of nature might have been assisted so as, by raising a considerable mound on the elevated centre, to command distant prospects, which will soon be built out. It used to be a favourite, a beautiful spot, rather wild, varied, and luxuriant; it is now comparatively dreary, tame, and of course insipid. It is evident that in annihilating the charms of nature, no principles of art have been resorted to, to compensate for the injury of the sad system of stopping up pathways alluded to by your correspondents. I may, with your permission, on a future occasion, mention a few interesting instances indicative of the unprotected rights of the people.

I am, Sir, &c., A Faithful Observer.

Machine for Raising Heavy Bodies in Deep Water.—A new machine, of which a gentleman of Worcester, Massachussetts, is the inventor, designed for lifting heavy articles from the bottom of deep water, is thus described:—A large vessel, containing materials for generating gas, is let down to the bottom, filled with water. The weight is attached, and the combustibles are ignited for the creation of the gas, which expels the water, and raises the vessel to the surface with a force of over 60 lbs. to the cubic foot. The machine is said to be simple, cheap, and likely to be very useful.

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